

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference F-1047	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2004/000238	International filing date (day/month/year) 15.01.2004	Priority date (day/month/year) 17.01.2003
International Patent Classification (IPC) or national classification and IPC H01R 11/01		
Applicant JSR CORPORATION		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 1 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/000238

Box No. I

Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-41 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 6-14 _____ as originally filed/furnished
- nos.* 1, 3-5 _____ as amended (together with any statement) under Article 19
- nos.* _____ received by this Authority on _____
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/18-18/18 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☒ the claims, nos. 2 _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1, 3-14	YES
	Claims		NO
Inventive step (IS)	Claims	1, 3-14	YES
	Claims		NO
Industrial applicability (IA)	Claims	1, 3-14	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Document 1: JP 2000-243485 A (JSR Corp.), 08 September 2000

Document 2: JP 2002-158051 A (JSR Corp.), 31 May 2002

Document 3: JP 2002-289277 A (JSR Corp.), 04 October 2002

Document 4: JP 2000-292485 A (Samsung Electronics Co., Ltd.), 20 October 2000

Claims 1 and 3-14

Documents 1-4 do not make any disclosures pertaining to the ratio of the diameters of the openings in the mesh in relation to the average particle diameter of the conductive particles.

In addition, the feature in question is not considered to be obvious to a person skilled in the art.

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 1 indicates that the "ratio $[r_1 / r_2]$ is 1.5 or more." However, the description does not include any clear support for establishing a limit of 1.5.

The disclosures on page 16 of the description can be interpreted as indicating that the larger the value for the ratio $[r_1 / r_2]$, the better; i.e., the conductive particles will become easier to orient in the thickness direction and will come to exhibit a smaller electrical resistance value. However, in the light of reference examples 1 and 2 disclosed on pages 40-41, the electrical resistance values are lower in cases wherein the ratio $[r_1 / r_2]$ was 2.4 than in cases wherein the ratio $[r_1 / r_2]$ was 3.8; therefore, the examples do not conform to the abovementioned disclosure.

Consequently, the relationship between the ratio $[r_1 / r_2]$ and the electrical resistance value is not clear from the description, and the reason for establishing a limit of 1.5 for the ratio $[r_1 / r_2]$ is also unclear in the light of the abovementioned disclosures in the description.

In addition, at the present the feature wherein the "ratio $[r_1 / r_2]$ is 1.5 or more" is considered to be novel and to involve an inventive step, as is indicated in Box V. However, if the flow characteristics of the conductive particles within the polymeric substance merely improve when the diameters of the openings in the mesh are larger than the diameters of the conductive particles, then it is possible that the feature wherein the "ratio $[r_1 / r_2]$ is 1.5 or more" may not involve an inventive step, in as much as such a ratio would

Box No. VIII **Certain observations on the international application**

naturally be determined by means of trial and error or through the application of conventional design practices when attempting to configure an anisotropic conductive connector that exhibits the functions that have been found to be necessary.